

REMARKS

Claims 1-5 and 7-27 are pending in this application. By this Amendment, the Abstract is amended. No new matter is added.

Applicant thanks Examiner Johnson for the courtesies extended to Applicant's representative during the May 12, 2004 personal interview. The points discussed are incorporated into the remarks below and constitute Applicant's record of the interview.

For the following reasons, Applicant respectfully requests reconsideration.

I. Formal Matters

The Abstract is amended to obviate the objection. Withdrawal of the objection is respectfully requested.

II. Reply to Rejections

On page 3, item 4 of the Office Action, claims 1-5, 7-10, 13 and 16-22 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 5,974,179 to Caklovic. The rejection is respectfully traversed.

Applicant respectfully submits that Caklovic fails to disclose reformatting the image by successively interleaving only a single corresponding pixel of each of the N raster lines extending in the second direction, as recited in claims 1 and 18; successively interleaving only a single corresponding pixel of the original image extending in the second direction, as recited in claim 7; successively interleaving only a single corresponding pixel of each of the N selected raster lines, as recited in claim 13; or distributing each bit of the at least one byte to only a single corresponding pixel in each N raster line of the restored image, as recited in claim 5.

That is, Caklovic fails to disclose working with only a single corresponding pixel for each raster line, as recited in the claims. Applicant claims interleaving only a single corresponding pixel for each raster line.

By reciting that only a single corresponding pixel for each raster line is worked with, the claims are patentable over Caklovic which discloses compression of two corresponding pixels from each scan line (col. 5, line 1). As shown in Figs. 1 and 2 of Caklovic, eight pixel segments a0-a7, b0-b7, c0-c7 and d0-d7 are used. Notice, the number of scan lines is only four. In order to create, for example, an eight bit unit from these four scan lines, at least two pixels from each of the four scan lines must be used (col. 4, lines 64-66). The two pixels used from each scan line correspond to the two pixels from each of the other three scan lines to create an eight bit unit. Therefore, Caklovic discloses using at least two corresponding pixels of each N scan line and fails to disclose that only a single corresponding pixel from each N scan lines is interleaved.

The Office Action, on page 3, item 4, asserts that Caklovic shows that only certain pixels correspond to other pixels in the reformatted interleave image. However, "only certain pixels" is not equivalent to "only a single corresponding pixel." As recited in the claims, only a single corresponding pixel of each raster line is interleaved.

In view of the foregoing, Applicant submits that claims 1, 5, 7, 13 and 18 are patentable over Caklovic. Claims 2-4, which depend from claim 1, claims 8-10, which depend from claim 7, claims 16 and 17, which depend from claim 13 and claims 19-22, which depend from claim 18, are likewise patentable over the applied reference for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 7, item 6 of the Office Action, claims 11, 12, 14, 15 and 23-27 are rejected under 35 U.S.C. §103(a) over Caklovic. The rejection is respectfully traversed.

As discussed above, Caklovic fails to disclose successively interleaving only a single corresponding pixel of the data, as recited in claim 11, or successively interleaving only a

single corresponding pixel of the original image, as recited in claim 23. Consequently, claims 11 and 23 are patentable over the applied reference.

Moreover, Caklovic does not suggest interleaving only a single corresponding pixel because Caklovic must use at least two corresponding pixels from each scan line in order to take advantage of redundancies occurring in both the vertical and horizontal directions as disclosed in column 1, lines 54-55.

Claim 12, which depends from claim 11, claims 14 and 15, which depend from claim 13 (claim 13 being patentable as discussed above), and claims 24-27, which depend from claim 23, are likewise patentable over the applied reference for at least on the basis of their dependence from their respective independent claim, and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

III. Regarding The Response to Amendment

Page 11, item 1 of the Office Action, sets forth the Examiner's disagreement that Caklovic fails to provide for only a single corresponding pixel from each selected raster line. However, as disclosed in col. 5, line 1 of Caklovic, two corresponding pixels from each selected raster line is used for Caklovic. Further, the claims do not recite at least a single corresponding pixel. Rather, the claims recite only a single corresponding pixel. Therefore, the claims are patentable over Caklovic.

IV. Regarding the Personal Interview

During the personal interview, the Examiner asserted that Applicant's invention in fact, does not interleave only a single corresponding pixel of each of the N selected raster lines, as recited in claim 1, which was used as an example of the claims. That is, upon interleaving the first pixel of each of the N raster lines, the Examiner asserted that the Applicant's invention must progress to the second pixel of each of the raster lines to form another grouping, which necessarily means that the Applicant is using more than a single

pixel, namely two pixels from each of the N raster lines. Therefore, the Examiner asserted that such use of at least two pixels from each of the raster lines is shown in Figure 2 of Caklovic, wherein items a0, a1 from scan line A(0,0) of Figure 1 is regrouped into bytes B(0,0).

In response, Applicant respectfully submits the regrouping of each of the scan lines from Figure 1 to Figure 2 of Caklovic does not show interleaving only a single corresponding pixel of each of the N selected raster lines. That is, Caklovic discloses selecting at least two corresponding pixels of each of the N selected raster lines, because the corresponding pixels in Caklovic exists in the horizontal (i.e., the scan line) direction and therefore, allows use of two corresponding pixels from each scan line. Caklovic cannot have only a single corresponding pixel as Caklovic must utilize the redundancies in both the vertical and horizontal directions. Such is shown in Figure 2 of Caklovic where one group of the corresponding pixels are grouped to form a 2 x 4 arrangement consisting of at least two corresponding pixels from each of the selected raster lines and the byte is formed from four of such at least two corresponding pixels of each of the selected raster lines.

In stark contrast, Applicant's invention interleaves only a single corresponding pixel from each scan line. That a next corresponding pixel from each scan line may be used to interleave a second set of data does not alter that fact.

Additionally, it was discussed during the interview whether the inclusive language "comprising" allowed the Applicant's claims to reformat into more than one column. Such is moot as Caklovic fails to suggest interleaving only a single corresponding pixel.

V. Conclusion

For the reasons stated above, Applicant submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are respectfully requested.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Amended Abstract

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